Case 2758

Buprestis Linnaeus, 1758 and *Chrysobothris* Eschscholtz, 1829 (Insecta, Coleoptera): proposed conservation by the designation of *Buprestis octoguttata* Linnaeus, 1758 as the type species of *Buprestis*

G.H. Nelson

College of Osteopathic Medicine of the Pacific, College Plaza, Pomona, California 91766–1889, U.S.A.

W.F. Barr

University of Idaho, Moscow, Idaho 83843, U.S.A.

Abstract. The purpose of this application is to conserve the universal understanding and usage of the names *Buprestis* Linnaeus, 1758 and *Chrysobothris* Eschscholtz, 1829 (family BUPRESTIDAE Leach, 1815, the jewel beetles) by designating *B. octoguttata* Linnaeus, 1758 as the type species of *Buprestis*. At present *B. chrysostigma* Linnaeus, 1758 is the valid type species of both *Buprestis* and *Chrysobothris*. Both genera, which have worldwide distribution, include species which are serious economic pests.

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1. Linnaeus (1758, p. 408) established the genus *Buprestis* with 19 included species. Among these were *octoguttata*, *mariana* and *chrysostigma*. By 1800 more than 250 species had been described in the genus although no type species had been designated. Many of the species originally included by Linnaeus are now placed in other genera.

2. Geoffroy (1762, p. 123) replaced the name *Buprestis* Linnaeus with his new name *Cucujus* and (p. 137) used *Buprestis* in place of the carabid names *Carabus* and *Cicindela* Linnaeus, 1758. This was recorded by Müller (1764, pp. xvi, xvii). Neither *Cucujus* nor *Buprestis* have been adopted in Geoffroy's sense; in an application to the Commission Kerzhner (BZN **48**: 120) has proposed the conservation of *Cucujus* Fabricius, 1775 (the type genus of the CUCUJIDAE) by the suppression of all previous uses of the name *Cucujus*.

3. Eschscholtz (1829, p. 9) established the genus *Chrysobothris* with three included species: *Buprestis chrysostigma*, *B. impressa* Fabricius, 1775 (p. 220) and *B. affinis* Fabricius, 1794 (p. 450). No type species was designated. Eschscholtz originally spelled the generic name as *Chrysobotris* but this has not been used for over 150 years and an application for the conservation of *Chrysobothris* has been published (BZN **49**: 120–121).

4. A number of type species designations have been made for *Buprestis* Linnaeus and *Chrysobothris* Eschscholtz, extending over several years. Latreille (1810, p. 426) designated *Buprestis chrysostigma* 'Fab.' (i.e. Fabricius, 1775, p. 219, who cited Linnaeus) as the type species of *Buprestis*. Subsequently Westwood ([1838], p. 24), apparently overlooking the earlier designation, designated *B. chrysostigma* as the type species of *Chrysobothris*, thereby rendering the latter name a junior objective

synonym of *Buprestis*. The type species designations in Westwood's *Synopsis of the genera of British insects* were accepted as valid in Opinion 71 (January 1922). The dates of publication of the work were set out in Direction 63 (June 1957). Gozis (1886, p. 20) designated *B. octoguttata* as the type species of *Buprestis*. Chamberlin (1926, p. 24) designated *B. affinis* Fabricius as the type species of *Chrysobothris*. Richter (1952, p. 190) designated *B. mariana* Linnaeus as the type species of *Buprestis* and (p. 199) *B. impressa* Fabricius as the type species of *Chrysobothris*.

5. In 1837 Kirby (p. 156) established *Odontomus* as a subgenus of *Buprestis*; however, he designated *B. chrysostigma* as the type species, thereby rendering *Odontomus* a junior objective synonym of *Buprestis* Linnaeus, 1758 (following Latreille's type designation). *Odontomus* is also a junior objective synonym of *Chrysobothris* Eschscholtz, 1829 (as typified by Westwood the following year). Kirby's classification did not include a nominotypical (in the modern sense) subgenus *Buprestis* (*Buprestis*).

6. Current usage of *Buprestis* and *Chrysobothris* is consistent with *octoguttata* and *chrysostigma* respectively as the type species. However, a strict adherence to the Principle of Priority and the recognition of Latreille's (1810) designation of *chrysostigma* as the type of *Buprestis* would necessitate using *Buprestis* as the valid name for the genus now called *Chrysobothris*, with *Chrysobothris* being a junior objective synonym. Another name would be required for *Buprestis* as currently understood. The next available is that of *Ancylochira* Eschscholtz, 1829 (p. 9), published with *octoguttata* and *Buprestis rustica* Linnaeus, 1758 (p. 409) among the seven included nominal species. Westwood ([1838], p. 24) designated *rustica* as the type of the genus. *Ancylochira* has been considered a junior subjective synonym of *Buprestis* and has been used as a valid name by only a single recent author, Richter (1952), who (p. 26) erroneously cited *octoguttata* as the type species.

7. The question of the status of the names *Buprestis* and *Chrysobothris* has long been recognized. Kerremans (1906, pp. 174–176) noted that there was confusion among earlier authors in the use of *Buprestis*; he accepted *B. octoguttata* as the type species. Méquignon (1939, pp. 48–49; a member of the Commission at that time) pointed out that the usage of the names *Buprestis* and *Chrysobothris* did not accord with Latreille's (1810) type designation; he proposed to refer the problem to the International Congress of Zoology for a suspension of the Code. Fisher (1942, p. 3) noted: 'On account of the wide distribution and great number of species, and an unbroken history of constant universal usage for over 100 years, and since a change of name at this late date would cause greater confusion than uniformity, the International Commission on Zoological Nomenclature will be requested to place *Chrysobothris* Eschscholtz, with *Buprestis chrysostigma* Linnaeus as type, and *Buprestis* Linnaeus, with *B. octoguttata* Linnaeus as type, on the Official List of Generic Names under suspension of the rules'. Schaefer (1949, p. 26) and Bellamy (1985, p. 408) supported Commission action to designate *B. octoguttata* as the type of *Buprestis*. Despite these statements an application to the Commission has not been made until now.

8. Cobos (1986, p. 112) noted the inclusion of 600 valid species worldwide in *Chrysobothris* and 80 species in *Buprestis*. There has been a considerable amount of literature published on a number of the common species included in the genera, both taxonomic and ecological (see, for example, Casey, 1909, p. 51; Arnett, 1962, p. 486;

Bílý, 1989, pp. 42, 66; Bright, 1987, p. 94. A list of a further eight references, all except one (1949) published since 1971, is held by the Commission Secretariat). Several species are economic pests (for example, *Buprestis aurulenta* Linnaeus, *B. apricans* Herbst, *Chrysobothris femorata* (Olivier) and *C. mali* Horn) and much applied literature has been published on these (see, for example, Knull, 1950, p. 192; Furniss & Carolin, 1977, p. 257). A transfer of the name *Buprestis* to the genus currently called *Chrysobothris*, and *Ancylochira* Eschscholtz used in place of *Buprestis* (para. 6 above), would result in great confusion. *Buprestis* and *Chrysobothris* are the type genera of the family-group taxa BUPRESTIDAE Leach, 1815 and CHRYSOBOTHRINI Gory & Laporte, [1839] respectively.

9. It has already been proposed (BZN **49**: 121) that *Chrysobothris* Eschscholtz, 1829 and the name of its type species *Buprestis chrysostigma* Linnaeus, 1758 be placed on the appropriate Official Lists.

10. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Buprestis* Linnaeus, 1758 and to designate *Buprestis octoguttata* Linnaeus, 1758 as the type species;

(2) to place on the Official List of Generic Names in Zoology the name *Buprestis* Linnaeus, 1758 (gender: feminine), type species by designation in (1) above *Buprestis octoguttata* Linnaeus, 1758;

(3) to place on the Official List of Specific Names in Zoology the name *octoguttata* Linnaeus, 1758, as published in the binomen *Buprestis octoguttata* Linnaeus, 1758 (specific name of the type species of *Buprestis*);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Odontomus* Kirby, 1837 (a junior objective synonym of *Chrysobothris* Eschscholtz, 1829).

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